



MAIL STOP APPEAL BRIEF-PATENTS
PATENTS
0509-1082

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of: Appeal No.

Jean SAUNIERE Conf. 7122

Application No. 10/517,526 Group 1791

Filed December 13, 2004 Examiner J. Sells

MELAMINE FOAM SHEET ARTICLE AND METHOD FOR
MAKING SAME

APPEAL BRIEF

MAY IT PLEASE YOUR HONORS: June 6, 2008

(i) **Real Party in Interest**

The real party in interest in this appeal is the Assignee, J.S.O of Albias, France.

(ii) **Related Appeals and Interferences**

Neither the appellant, appellant's legal representative nor the assignee know of any other prior or pending appeals, interferences or judicial proceedings which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

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(iii) **Status of the Claims**

Claims 42-62 and 83-89 are pending, from whose final rejection this appeal is taken. Claims 1-41 and 63-82 were cancelled.

(iv) **Status of Amendments**

There are no outstanding amendments. The claims have not been amended since the April 20, 2007 amendment. These claims were finally rejected by the Official Action mailed May 10, 2007 (the "Official Action"). The claims are as set forth in the Claims Appendix.

(v) **Summary of Claimed Subject Matter**

Claim 42 is independent.

Claim 42 recites a method for making an article comprising at least one piece of sheet-form melamine foam having a thickness which is sufficiently small to exhibit flexibility and no flexural elasticity,

(specification page 6, lines 20-24)

comprising the steps of:

tangentially cutting into an exterior surface of a melamine foam block with a blade having a cutting edge aligned tangentially to said exterior surface

so as to peel a strip of melamine foam from said

melamine foam block, said strip having a thickness which is sufficiently small to exhibit flexibility and no flexural elasticity;

(specification page 6, lines 25-27 in view of specification page 20, line 21 to page 21, line 6)

deriving at least one piece of sheet-form melamine foam from said strip; and

forming an article from said at least one piece of sheet-form melamine foam,

(specification page 6, lines 27-29)

 said article having a total thickness.

(specification page 8, lines 22-24)

(vi) Grounds of Rejection to be Reviewed on Appeal

The ground of rejection on appeal is whether claims 42-62 and 83-89 were properly rejected as being unpatentable under 35 U.S.C. §103(a) as obvious over KLEMM et al. U.S. 4,191,743 ("KLEMM") in view of DESMARAIS et al. U.S. 6,209,430 ("DESMARAIS").

(vii) Arguments

Claims 42-62 and 83-89 stand together

The Position of the Official Action

The Examiner's position is that it would have been obvious to one having ordinary skill in the art to employ the tangential cutting technique disclosed by DESMARAIS to produce the sheet form melamine foam materials of KLEMM in order to achieve predictable results.

Teachings of the Art of Record

Admission of the Prior Art

The known methods for preparing melamine foam are aqueous foaming methods, generally using a melamine/formaldehyde precondensate, an emulsifier, a volatile blowing agent and a curing agent. See, e.g., U.S. 4,666,948, which was cited in the IDS filed December 13, 2004, and discussed in the present specification at page 7.

Through these aqueous foaming methods, it was not possible to obtain a layer of melamine foam with a thickness sufficiently small to exhibit flexibility and no flexural elasticity.

Moreover, due to the known great fragility and the brittle nature of melamine foams, there was no method for cutting a block of melamine foam into continuous thin strips. See, e.g., the paragraph bridging specification pages 4 and 5, specification pages 1 and 2, as well as column 1 of U.S. 4,666,948.

Thus, prior to the claimed invention, one of ordinary skill in the art did not know how to obtain a strip or sheet of melamine foam having a thickness sufficiently small to exhibit flexibility and no flexural elasticity.

Teachings of KLEMM

KLEMM discloses a multilayer structure of an antibacterial wound dressing, which includes a layer "c" having a thickness of 0.5-10 mm or a layer "d" having a thickness of 0.3-2 mm, wherein said layers are open-celled materials, such as a foamed synthetic resin. The intended use of these open-celled materials is to absorb fluids (layer "c") and prevent the growth of fibroblasts between the wound and the foam (layer "d").

While KLEMM may suggest melamine-formaldehyde as the foamed synthetic resin, KLEMM fails to disclose how such melamine layers are to be obtained. That is, KLEMM fails to disclose making a strip by tangentially cutting a foam block, that is sufficiently small to exhibit flexibility and no flexural elasticity as recited in independent claim 42.

Teachings of DESMARAIS

DESMARAIS solves the problem of continuously producing a web from a block of foam material, which is saturated with a fluid, by peeling (tangentially cutting)

said block. The process can be used with other non-foamed materials as well. Specifically, DESMARAIS is to peeling the following materials:

- Water-filled High Internal Phase Emulsion (HIPE) foams. These foams are batch-produced by curing a high internal phase emulsion in large tubes or vats, and they exhibit a good structural integrity (see column 2, lines 36-37 of DESMARAIS).
- Other materials that may be blade cut and have sufficient structural integrity to be processed as a web or sheet, such as non-foamed polymers, wood or cheese, or especially structures saturated with fluids such as water or gelatinous fluids (see column 4, lines 21-27 of DESMARAIS).

For the HIPE foam materials, these fluid-saturated materials are very soft and susceptible to deformation if not fully supported. However, the foams do have sufficient structural integrity to be processed as a sheet. See, e.g., the discussion in column 2, line 35 to column 3, line 13 of DESMARAIS.

DESMARAIS does not disclose or suggest peeling melamine foams.

The Combination of KLEMM and DESMARAIS

One of ordinary skill in the art would have been discouraged to use the method of DESMARAIS to obtain the

foam layer of KLEMM, as melamine foams are neither disclosed nor suggested by DESMARAIS. Contrary to the position of the Official Action, there would be no predictable results, as melamine foams are not art recognized equivalents to HIPE foams or structures saturated with fluids for at least two reasons:

I. The art recognizes the foams as different.

DESMARAIS explicitly distinguishes the melamine foams from HIPE foams by their function. DESMARAIS refers to US 5,318,554 (column 1, line 63 to column 2, line 3), which discloses "absorbent cores having a fluid acquisition/distribution component that can be a hydrophilic, flexible, open-celled foam such as a melamine foam (e.g. BASOTECT made by BASF), and a fluid storage/redistribution component that is a HIPE-based absorbent foam". (Emphasis added.)

Thus, the two foams types are not art recognized equivalents.

II. The physical characteristics are different.

Melamine foam blocks are fragile and brittle, as recognized by the art of record, e.g., U.S. 4,666,948.

DESMARAIS discloses that the foam piece used in the peeling method, i.e., HIPE foam, is soft, deformable,

and saturated with water such that 90-99% of the foam weight is water.

Thus, the foams are not structural equivalents.

Therefore, there would be no expectation of success, or predictable results, for cutting a brittle and fragile foam block using a method intended for a dissimilar, soft, deformable material which is saturated with a fluid and has a structural integrity for processing as a web.

Moreover, there would have been no reason for one to even seek a method for cutting a block of melamine foam, as KLEMM does not require obtaining a strip or sheet of melamine layer from a block.

Reversal of the obviousness rejection of independent claims 42 is accordingly respectfully requested. As claims 43-62 and 83-89 depend from claim 42, reversal of

the obviousness rejection of dependent claims 43-62 and 83-89 is also respectfully requested.

Respectfully submitted,

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(viii) **Claims Appendix**

The claims on appeal are:

42. A method for making an article comprising at least one piece of sheet-form melamine foam having a thickness which is sufficiently small to exhibit flexibility and no flexural elasticity, comprising the steps of:

tangentially cutting into an exterior surface of a melamine foam block with a blade having a cutting edge aligned tangentially to said exterior surface so as to peel a strip of melamine foam from said melamine foam block, said strip having a thickness which is sufficiently small to exhibit flexibility and no flexural elasticity;

deriving at least one piece of sheet-form melamine foam from said strip; and

forming an article from said at least one piece of sheet-form melamine foam, said article having a total thickness.

43. The method as claimed in claim 42 further comprising the step of

attaching at least one reinforcing layer to each piece of sheet-form melamine foam,

wherein said article comprises two opposing main free faces and the total thickness is sufficiently small to exhibit flexibility and no flexural elasticity, and

at least one of the main free faces of said

article has a scouring free face formed at least in part by at least one piece of melamine foam.

44. The method as claimed in claim 42, wherein said melamine foam block is cut by peeling into a strip having a thickness of less than or equal to 1 mm.

45. The method as claimed in claim 42, wherein said melamine foam block is cut by peeling into a strip having a thickness of approximately 0.8 mm.

46. The method as claimed in claim 43, wherein said article comprises a melamine foam layer having a main face which defines a scouring free face of the article and, superimposed on said melamine foam layer, a reinforcing layer having a main face that defines the other free face.

47. The method as claimed in claim 43, wherein the reinforcing layer is a layer of melamine foam.

48. The method as claimed in claim 43, wherein the reinforcing layer is made of a material that is different from a melamine foam and has a tear strength higher than that of said melamine foam.

49. The method as claimed in claim 42, wherein said article comprises two opposing main free faces and the total thickness is sufficiently small to exhibit flexibility and no flexural elasticity, and

at least one of the main free faces is an absorbent free face formed at least in part by at least one

piece of absorbent material.

50. The method as claimed in claim 43, wherein said article comprises at least one reinforcing produced from an absorbent material.

51. The method as claimed in claim 43, wherein said article comprises a layer of melamine foam having a main face defining the scouring free face of the article and, superimposed on the melamine foam layer and made of an absorbent material, a reinforcing layer having a main face defining the absorbent free face of the article.

52. The method as claimed in claim 43, wherein the opposing main free faces are both scouring faces and are formed by two distinct layers of melamine foam between which at least one reinforcing layer is interposed.

53. The method as claimed in claim 42, wherein the total thickness of said article is less than 5 mm.

54. The method as claimed in claim 42, wherein the total thickness of said article is approximately 0.85 to 2 mm.

55. The method as claimed in claim 43, wherein each reinforcing layer is produced from a fibrous material mainly containing fibers selected from: cellulose fibers, natural textile fibers, synthetic textile fibers.

56. The method as claimed in claim 43, wherein each reinforcing layer is produced from a material selected

from: a cellulose nonwoven, a viscose nonwoven, a perforated cotton nonwoven, a polyamide knit, a cotton gauze, a polyurethane foam, a polyethylene foam.

57. The method as claimed in claim 42, further comprising the step of impregnating said article with a liquid composition, wherein at least a portion of the total thickness of said article is impregnated with the liquid composition before being packaged.

58. The method as claimed in claim 57, wherein the liquid composition used is selected from the group consisting of: a detergent, a solvent, a bacteriostatic and/or bactericidal disinfectant composition, water and mixtures thereof.

59. The method as claimed in claim 57, wherein the liquid composition used is selected from the group consisting of: a moisturizing solution, a soap, a deodorant, a perfume, a make-up removing composition, an emollient, an ointment, an antiseptic, water, hydrogen peroxide solution and mixtures thereof.

60. The method as claimed in claim 42, further comprising the step of incorporating into at least a portion of the total thickness of said article a solid composition capable of dissolving in the presence of a liquid so as to be able to release an active agent.

61. The method as claimed in claim 42, further

comprising the step of wrapping said article in an individual or collective impermeable packaging.

62. The method as claimed in claim 43, wherein the said at least one reinforcing layer is attached to each piece of sheet-form melamine foam is laminated in pairs by an intermediate heat-activated adhesive film.

83. The method as claimed in claim 42, wherein said strip is peeled from said melamine foam block as a continuous strip.

84. The method as claimed in claim 42, further comprising the step of rotating said melamine foam block during said tangentially cutting step.

85. The method as claimed in claim 84, further comprising the steps of withdrawing said strip and winding said strip around a rotating shaft.

86. The method as claimed in claim 85, wherein said strip is peeled from said melamine foam block as a continuous strip.

87. The method as claimed in claim 42, further comprising the step of collecting said strip by withdrawing said strip and winding said strip around a rotating shaft.

88. The method as claimed in claim 87, wherein said strip is a continuous strip peeled from said melamine foam block.

89. The method as claimed in claim 42, further

comprising the steps of:

rotating said melamine foam block while tangentially cutting; and

withdrawing said strip as it is peeled from said melamine foam block and winding said strip around a rotating shaft, said rotating shaft being synchronized with said rotating melamine foam block so as to collect a continuous strip of melamine foam from said block.

(ix) **Evidence Appendix**

None.

(x) **Related Proceedings Appendix**

None.